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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,910	04/01/2005	Ronald William Driver	87278.2500	5381

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EXAMINER

TRIEU, THAI BA

ART UNIT	PAPER NUMBER
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3748

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/529,910

Applicant(s)

DRIVER, RONALD WILLIAM

Examiner

Thai-Ba Trieu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 8-18 is/are rejected.
- 7) ☒ Claim(s) 2 and 5-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 08/22/2005 & 09/18/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The Preliminary Amendment filed on March 06, 2007 is acknowledged. Claims 3-4, 6-13, and 15-16 were amended.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

Since the abstract is too long, applicant is required to submit a substitute abstract to meet the requirement set forth below:

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

Claim 1 is objected to because of the following informalities:

- In lines 5, 7-8, and 14-16, "***the said***" should be replaced by either -- ***the***
-- or -- ***said*** -- (for addressing the redundancy).

Appropriate correction is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 3-4, and 8-18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/501,148.

Driver discloses a rotary positive displacement machine comprising:

a casing having a circular cylindrical internal surface delimiting an operating chamber (See Claim 1 of application 10/501148);

an orbiting piston in the operating chamber, the orbiting piston being mounted so as to orbit about a chamber axis which is the axis of the said internal surface, the orbiting piston having a circular cylindrical external surface, the chamber axis passing through the orbiting piston, a generatrix of the external surface being adjacent to the said internal surface, and a diametrically opposite generatrix being spaced from the said internal surface (See Claim 1 of application 10/501148);

a vane member mounted on the casing, the vane member having a tip face which faces the external surface of the orbiting piston and which has a length substantially equal to that of the orbiting piston (See Claim 1 of application 10/501148);
and

a linkage which connects the vane member to the orbiting piston so as to keep the tip face of the vane member adjacent the external surface of the orbiting piston (See Claim 1 of application 10/501148).

However, Claim 1 of application 10/501148 fails to disclose at least one of the said external and internal surfaces being provided with individual compliant strips and an assembly of two machines and their arrangements.

Driver, in the application 10/501148, teaches that it is conventional in the rotary displacement machine art, to utilize at least one of the said external and internal surfaces being provided with individual compliant strips (73) which are distributed

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around the said one surface, run parallel to one another, and project above the said one surface (See Figures 44-45, page 20, lines 16-24);

in which each compliant strip is made of an elastomer (Read as rubber) (See Figures 44-45, page 20, lines 16-24);

in which only one of the said external and internal surfaces is provided with the said compliant strips (73) (See Figures 44-45, page 20, lines 16-24);

in which the said one surface is the external surface of the orbiting piston (See Figures 44-45, page 20, lines 16-24);

in which both of the said external and internal surfaces are provided with the said compliant strips (73) (See Figures 44-45, page 20, lines 16-24);

in which the distribution of the compliant strips (73) is such that there is at least one of the compliant strips in contact with the other surface over the majority of the orbit of the orbiting piston (4) (See Figures 44-45, page 20, lines 16-24);

in which the orbiting piston comprises a non-rotating outer part (4b) and a rotating inner part (4a) (See Figures 44-45, page 20, lines 16-24); and

in which the outer part comprises an extruded body (See Figures 44-45, page 20, lines 16-24);

a disc (6) at one end of the orbiting piston (4), the disc (6) rotating about the chamber axis in synchronism with the orbiting piston (4) and delimiting one end of the operating chamber (See Figures 44-45, page 20, lines 16-24) (See Figures 44-45, page 20, lines 16-24); and

an assembly comprising a first rotary positive displacement machine and a second rotary positive displacement machine, in which the two machines are fixed end-to-end and have a common axis (see Figures 46-47); and in which the two machines are arranged side-by-side with parallel axes(See Figures 42-43).

It would has been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized at least one of the said external and internal surfaces being provided with individual compliant strips and an assembly of two machines and their arrangements, as taught by Driver, to improve the efficiency of the device, since the use thereof would have reduced leakage between the piston and the casing and provided an alternative arrangement or design of assembling the machines to match with the machine requirement.

This is a provisional obviousness-type double patenting rejection.

Allowable Subject Matter

Claims 2 and 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The IDS(s) (PTO-1449) filed on August 22, 2005 and September 18, 2006 have been considered. Each initialized copy is attached hereto.

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Zen (US Patent Number 4,657,009) discloses a combustion rotary engine.
- Piper (US Patent Number 3,938,478) discloses a combustion rotary engine.
- Nutku (US Patent Number 3,693,600) discloses a rotary machine with ducted eccentric rotor and sliding stator vane.
- Winn (US Patent Number 1,320,953) discloses a rotary engine.
- Krueger (US Patent Number 773,649) discloses a rotary engine.
- Rantala (Pub. Number WO 03/012259 A1) discloses a method for increasing the effect to be produced in a motor, pump, or the like.
- Streit (Pub. Number DE 44 27 105 C1) discloses a rotary Internal combustion engine with hinged segments.
- Igarashi (Patent Number JP 55-093902 A) discloses a rotary engine.
- Hinton (Pub. Number GB 2122686 A) discloses a rotary internal combustion engine.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (571) 272-4867. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TTB
April 14, 2007


Thai-Ba Trieu
Primary Examiner
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